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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,452

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EXAMINER

COBURN, CORBETT B

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

08/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,452	<b>Applicant(s)</b> AKITA, MANABU	
	<b>Examiner</b> Corbett B. Coburn	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 & 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/1/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3 & 5, 6 & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thorner et al. (US Patent Number 6,422,941) in view of the linear congruential method of generating pseudo-random numbers.

**Claim 1, 6, 8:** Thorner teaches a connection unit, a storage unit, a reception unit, a generation unit, and a sending unit. (Fig 2) The connection unit can be communicably connected to a controller (540) having a lever that can be moved along a predetermined route, and which sends status information specifying a current position of the lever and receives instruction information specifying a repulsive force to be applied to the lever – this is how force feedback controllers work. The storage unit pre-stores repulsive force information specifying a repulsive force to be applied to a lever, in association with a game status and a position of a lever. (figs 14 & 15) The reception unit (110) receives status information from said controller via said connection unit. The generation unit acquires the repulsive force information pre-stored in association with a current game status and a position of a lever specified by the received status information, and generates instruction information specifying a repulsive force specified by the acquired repulsive

force information (Figs 14 & 15). The sending unit sends the instruction information generated by said generation unit to said controller via said connection unit.

Thorner teaches that the generation unit designates as the instruction information, a value obtained by heightening or lowering the repulsive force specified by the acquired repulsive force information in a predetermined cycle or randomly. In Col 16, Thorner describes a crash event. The repulsive force (specified by the CRASH MAGNITUDE parameter) is modified according to a predetermined cycle based on the CRASH HOLD & CRASH FADEOUT values. Thorner does not describe the manner in which the parameters such as CRASH HOLD & CRASH FADEOUT are determined. It is well within the level of ordinary skill to set these parameters randomly and doing so would yield predictable results. Setting these parameters randomly would yield a value obtained by heightening or lowering the repulsive force specified by the repulsive force information randomly. The method of setting these parameters would be a matter of design choice for which Applicant has shown no particular benefit. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Thorner to yield a value obtained by heightening or lowering the repulsive force specified by the repulsive force information randomly because the parameters CRASH HOLD & CRASH FADEOUT must be determined in some manner & random determination of parameters is well known to the art. Furthermore, there are only a finite number of ways to set these parameters -- the values may either be predetermined, based on a predetermined formula, or random. It would be obvious to try each of these methods.

Setting these parameters randomly would give at least one significant advantage – feedback from crashes would not all be identical. If these values are not assigned randomly, then every time a crash occurs, the player will have the same experience. This gets boring. Besides, players know that all crashes should not feel alike. Crashes are unpredictable and force feedback from a crash should have a level of unpredictability. This can be achieved by setting these parameters in a random manner for each crash.

Regarding the newly-added limitations concerning cyclically generating random numbers, this is how pseudo-random number generators work. The linear congruential method is a common method of generating pseudo-random numbers & has been well known to the art for decades. It produces a cycle of "random" numbers – the length of the cycle depending on parameters used in the formula for producing the random numbers. Thus if enough random numbers are produced (i.e., if enough crashes occur), then the random number generator will eventually produce the same string of random numbers for a complete cycle.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Thorner to use the linear congruential method to cyclically generate random numbers in order to set the values for the CRASH HOLD & CRASH FADEOUT parameters in a random manner. Note that each time there is a crash, the random number generator would generate a new random number. If enough crashes occur, the random number generator will make a complete cycle & begin repeating.

**Claim 3:** Videogame unit (102) is a calculation unit and a display unit. The storage unit further pre-stores driving force information specifying a driving force in association with

a game status and a position of a lever. The calculation unit calculates acceleration of an object moving in a virtual world, based on a driving force specified by the driving force information pre-stored in association with a current game status and the position of the lever specified by the received status information; and said display unit moves the object in the virtual world at the calculated acceleration, and displays the object on a screen at a position reached by moving. Thorner teaches using the system in a car simulation (Fig 26C).

**Claim 5:** Thorner teaches an audio unit, wherein: said storage unit further pre-stores audio information in association with a game status and a position of a lever; and the audio unit reproduces the audio information pre-stored in association with a current game status and the position of the lever specified by the received status information. (Fig 12)

3. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thorner and the linear congruential random number generator as applied to the claims above in view of Simonelli (US Patent Number 4,817,948).

**Claim 4:** Thorner teaches the invention substantially as claimed, but fails to teach that the display unit displays on the screen, the virtual world as viewed from the position of the moved object (i.e., in first person). This is a matter of design choice and many, if not most, car games depict the world as seen through the windshield of the car. Simonelli teaches such a game (Fig 2). This heightens the sense of realism by allowing the driver to feel as if he is actually in the car. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Thorner in view of Simonelli to

display the virtual world as viewed from the position of the moved object in order to heighten the sense of realism.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-6 & 8 have been considered but are moot in view of the new ground(s) of rejection.
5. Applicant argues that Thorner teaches away from CRASH MAGNITUDE being a random number. Examiner disagrees. Applicant points out that CRASH MAGNITUDE is set at the highest possible value. Examiner agrees. But Examiner does not contend that CRASH MAGNITUDE is set randomly. Examiner contends that it would be obvious to set CRASH HOLD and/or CRASH FADEOUT randomly. Of course this does not keep the game designing from constraining the random numbers to certain limits.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corbett B. Coburn whose telephone number is (571) 272-4447. The examiner can normally be reached on 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Corbett B. Coburn/  
Primary Examiner  
Art Unit 3714